

CLAIMS

1. A method for the operation of a multi-cylinder internal combustion engine with intake and exhaust valves and at least one braking valve for each cylinder, said braking valves being connected to a common pressure vessel (braking rail), wherein during the start-up phase of the internal combustion engine a first group of cylinders is cut off from the fuel supply such that the cylinders of this first group operate as compressors charging the pressure vessel via their braking valves with compressed air, and wherein the cylinders of a second group of cylinders supplied with fuel are charged with compressed air from the pressure vessel via their braking valves, thus raising the compression pressure and compression temperature in the cylinders of the second group during the start-up phase.
2. A method according to claim 1, wherein for the cylinders of the first group the braking valves are opened in the range 540° to 720° crank angle, and preferably 570° to 690° crank angle, to charge the pressure vessel with air, and wherein for the cylinders of the second group the braking valves are opened in the range 480° to 630° crank angle, and preferably 510° to 610° crank angle, to feed compressed charge air from the pressure vessel.
3. A method according to claim 1 or 2, wherein a multi-cylinder internal combustion engine is operated from start-up until idling speed is attained by the cylinders of the second group exclusively.
4. A method according to any of claims 1 to 3, wherein a multi-cylinder internal combustion engine is operated during a short warm-up phase by the cylinders of the second group exclusively.

